

REMARKS

Claims 1, 5-11 and 14-22 remain pending in the present application. Claims 12 and 13 have been cancelled. Claims 1, 5, 7, 8, 11 and 14 have been amended. Claims 15-22 are new. Basis for the amendments and new claims can be found throughout the specification, claims and drawings originally filed.

REJECTION UNDER 35 U.S.C. § 103

Claims 1 and 7-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takano, et al. (JP 2001-130245) in view of Izawa, et al. (U.S. Pat. No. 6,516,628). Claims 5 and 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takano, et al., in view of Izawa, et al., as applied to Claim 1 above and further in view of Schnelle, et al., (U.S. Pat. No. 4,611,374). Applicants respectfully traverse this rejection.

In amended Claims 1 and 14 and new Claim 19 of the present application, the low-pressure gas-liquid separator has a first inlet coupled to the refrigerant outlet of the front evaporator, and a second inlet independently formed from the first inlet and coupled to the refrigerant outlet of the rear evaporator. That is, both the first and second inlets are positioned at separated positions to independently and separately introduce the refrigerant from the front evaporator and the refrigerant from the rear evaporator. In addition, a check valve is located adjacent to the second inlet of the low-pressure gas-liquid separator. Therefore, in the above structure, a pipe connection structure with the low-pressure gas-liquid separator and the check valve can be made simple.

In amended Claim 8, the pipe connection of the hot-gas bypass passage is located outside the passenger compartment. Therefore, the pipe connections inside the passenger compartment can easily be made.

In new Claim 16, the low-pressure gas-liquid separator and the check valve are assembled as a single unitary component disposed outside the passenger compartment spaced from the rear evaporator. Therefore, the pipe connections inside the passenger compartment can be made simple.

The prior art cited by the Examiner fails to teach the structure of the low-pressure gas-liquid separator and the check valve located adjacent to the second inlet of the low-pressure gas-liquid separator. Accordingly, even by combining the Examiner's documents, Applicants believe the amended claims of the present application are not obvious based on the cited prior art.

Thus, Applicants believe Claims 1 and 14, as amended, patentably distinguish over the art cited by the Examiner. Likewise, Claims 5-11, which now ultimately depend from Claim 1, are also believed to patentably distinguish over the art of record. Claims 12 and 13 have been cancelled. Reconsideration of the rejection is respectfully requested.

NEW CLAIMS

New Claims 15-18 are dependent claims which ultimately depend from Claim 1 and thus are believed to be allowable. New Claim 19 is a new independent claim with limitations that, as disclosed above, are believed to be allowable. New Claims 20-22 are the same as Claims 16-18, but they ultimately depend from Claim 19.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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